Inspection Report

Bioretention Area

Submitted to

CITY OF DURHAM
Stormwater Services Division, Department of Public Works
101 City Hall Plaza, Durham, NC 27701
Phone: 919/560-4326 Fax: 919/560-4316
www.durhamnc.gov

Date of Inspection	
Name of Certifier (BMC)	
Facility Name	
City of Durham Facility ID #	
Annual Anniversary Month	
Maintenance Access Address	
ADC Map Grid (Optional)	
GIS Coordinates (Optional)	
City of Durham PIN	
River Basin (Neuse or Cape Fear)	
Water Supply Overlay	

Adopted City of Durham Design, Inspection, and Maintenance References:

1. City of Durham *Reference Guide for Development*
2. *Owner's Guide to the Maintenance of BMPs Constructed in the City of Durham*
3. *Determining BMP Inspection and Maintenance Costs for Structural BMPs in North Carolina*, Dr. Bill Hunt, NCSU
4. *Stormwater Best Management Practices Manual*, July 2007, NC Division of Water Quality

Inspection Items

(Please refer to the photographic journal of the inspection and to any supplemental [and facility specific] items attached to this inspection report.)

Inflow Channels/Pipes/Slopes

check

☐ No additional maintenance is recommended at this time.

☐ The inlet areas have eroded. These eroded areas should be repaired.

Comments (**highlighted**):

☐ Trash and debris are in the forebay/sediment basin. This material should be removed. If the facility is fed by concentrated inlets and there is not a forebay or sediment basin, one should be considered.

Comments:

☐ Approximately 25% (or more) of the forebay/sediment basin has been filled with sediment. This material should be removed.

Comments:

☐ It appears that the by-pass/diversion structure is malfunctioning. Any trash, sediment, or debris blocking the entry or passage of storm flows through the structure should be removed.

Comments:

☐ Additional Items/Comments:

Berm (Small Dam Embankment)

☐ No additional maintenance is recommended at this time.

☐ The berm was not constructed properly. The berm should be reconstructed to the required height and with the required material.

Comments:

☐ A portion of the berm has "blown out" (e.g., eroded). The berm should be repaired. Along with the repair, the installation of an armored spillway should be considered. The provision of such a spillway may require that the berm be constructed to a height approximately 6-inches above the height specified in the approved Construction Drawings.

Comments:

☐ Additional Items/Comments:

Bioretention Area and Under Drain Pipes (Plantings Excluded)

☐ No additional maintenance is recommended at this time.

☐ The mulch layer has deteriorated or washed away. This mulch layer should be replaced with a 2- to 3-inch deep layer of fine shredded hardwood mulch or chips and should be spread uniformly over the entire area.

Comments:

☐ Areas of erosion were noted in the floor of the bioretention area. These areas should be repaired.

Comments:

☐ The bioretention area is holding water (e.g., for more than 24-hours after a rain event).

Comments:

☐ It appears that the soil mix was not installed properly (e.g., either the required soil mix was not used or it was not installed to the correct depth). If it is determined that the soil mix was constructed improperly, the bioretention area will need to be reconstructed to the plan and specifications contained in the approved Construction Drawings.

Comments:

☐ It appears that the sand layer, which was to be installed under the soil base, was not installed. If it is determined that this sand layer was not installed, the bioretention area will need to be reconstructed to the plan and specifications contained in the approved Construction Drawings.

Comments:

☐ It appears that the relief pipes (e.g., under drains) proposed in the approved construction drawings were not installed. If it is determined that these drains were not installed, the bioretention area may need to be reconstructed. The relief drains were proposed to mitigate the effects of the poorly draining soils anticipated under the subject facility. If it appears, however, that the facility is functioning adequately and infiltrating the treated drainage into the underlying soil, reconstruction will not be required. If relief drains were not proposed in the Construction Drawings, and the facility appears to have been functioning more like a wetland, official conversion of the facility from a bioretention area to a stormwater wetland may be appropriate. In such instances, consultation with Stormwater Services is recommended.

Comments:

☐ Additional Items/Comments:

Riser

☐ No additional maintenance is recommended at this time.

☐ The low-level orifice/inverted siphon is blocked. This blockage should be removed. A debris cage is/is not (highlighted) recommended [disregard comment if a debris cage is already present].

Comments:

☐ The riser is filled with excess material (debris, trash, rock, etc.). This material should be removed. A top trashrack is/is not recommended [disregard comment if a trashrack is already present].

Comments:

☐ The top trashrack/anti-vortex device is damaged. The trashrack/anti-vortex device should be repaired or replaced.

Comments:

☐ The riser is damaged/deteriorated. The riser should be repaired or replaced.

Comments:

☐ Additional items/comments:

Principal Spillway Pipe (PSP)

☐ No additional maintenance is recommended at this time.

☐ The PSP is blocked. The blockage should be removed.

Comments:

☐ One or more joints of the PSP are leaking.

Comments:

☐ One or more sections of pipe have settled to a point where the integrity of the dam may be threatened. These sections of pipe may need to be replaced.

Comments:

☐ Additional items/comments:

Outfall

- ☐ Not applicable.
- ☐ No additional maintenance is recommended at this time.
- ☐ The outfall is blocked. The blockage should be removed.

  Comments:
- ☐ The outfall area is eroded. The eroded area should be repaired.

  Comments:
- ☐ Additional Items/Comments:

Plantings

- ☐ No additional maintenance is recommended at this time.
- ☐ Several of the plants provided with the original construction of the facility appear to have died. These plants should be removed and replaced.

  Comments:
- ☐ The facility appears to have become overgrown. As such, the vegetation in the facility should be thinned out.

  Comments:
- ☐ Additional Items/Comments:

Other Maintenance Items

Summary List of Remedial Items to be Completed for Certification

Professional Execution

Name (Signature): _____ Date: _____

Name (Printed): _____

BMC #: _____

NCPE or NCRLA Seal: